

|           |                |
|-----------|----------------|
| APPROVED  | O.G. FIG.      |
| BY        | CLASS/SUBCLASS |
| DRAFTSMAN |                |

ecoRI

1 GAATTCAACT TCTCCATACT TTGGATAAAGG AAATACAGAC ATGAAAAATC TCATTGCTGA GTTGTTATTT AAGCTTGCCC AAAAAGAGA AGAGTCGAAT  
CTTAAGTTGA AGAGGTATGA AACCTATTCC TTTATGTCTG TACTTTTTAG AGTAACGACT CAACAATAAA TTGGAACGGG TTTTCTTCT TCTCAGCTTA

101 GAACTGTGTG CGCAGGTAGA AGCTTTGGAG ATTATCGTCA CTGCAATGCT TCGCAATATG GCGCAAAATG ACCAACACGG GTTGATTGAT CAGGTAGAGG  
CTTGACACAC GCGTCCATCT TCGAAACCTC TAATAGCAGT GACGTTACGA AGCGTTATAC CGCGTTTTAC TGCTTGTCGC CAACTAACTA GTCCATCTCC

201 GGGCGCTGTA CGAGGTAAAG CCCGATGCCA GCATTCTGA CGACGATACG GAGCTGCTGC GCGATTACGT AAAGAAGTTA TTGAAGCATC CTCGTCAGTA  
CCCGCGACAT GCTCCATTTC GGGCTACGGT CGTAAGGACT GCTGCTATGC CTCGACGACG CGCTAATGCA TTTCTTCAAT AACTTCGTAG GAGCAGTCAT

301 AAAAGTTAAT CTTTTCACA GCTGTCATAA AGTTGTCACG GCCGAGACTT ATAGTCGCTT TGTTTTATT TTTTAATGTA TTTGTAACATA GTACGCCAAGT  
TTTTCAATTA GAAAAGTTGT CGACAGTATT TCAACAGTGC CGGCTCTGAA TATCAGCGAA AAAAAATAA AAAATTACAT AAACATTGAT CATGCGTTCA

Trp SD xbaI STII SD

401 TCACGTAAAA AGGGTATCTA GAGGTTGAGG TGATTTT ATG AAA AAG AAT ATC GCA TTT CTT CTT GCA TCT ATG TTC GTT TTT TCT  
AGTGCATTTT TCCCATAGAT CTCCAACCTCC ACTAAAA TAC TTT TTC TTA TAG CGT AAA GAA GAA GAA GAA GAA CAA AAA AGA

1

Met Lys Lys Asn Ile Ala Phe Leu Leu Ala Ser Met Phe Val Phe Ser

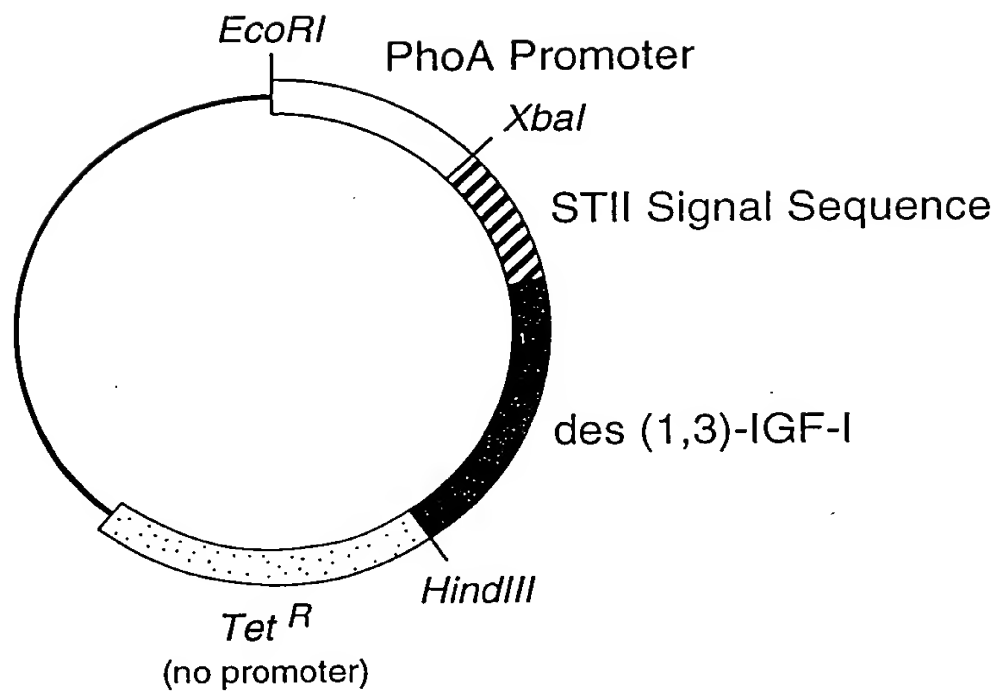
486 ATT GCT ACA AAT GCC TAT GCA (SEQ ID NO: 13)

TAA CGA TGT TTA CGG ATA CGT

17 Ile Ala Thr Asn Ala Tyr Ala (SEQ ID NO: 14)

FIG. 1

|           |                |
|-----------|----------------|
| APPROVED  | O.G. FIG.      |
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**FIG. 2**

|           |                |
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| APPROVED  | O.G. FIG.      |
| BY        | CLASS/SUBCLASS |
| DRAFTSMAN |                |

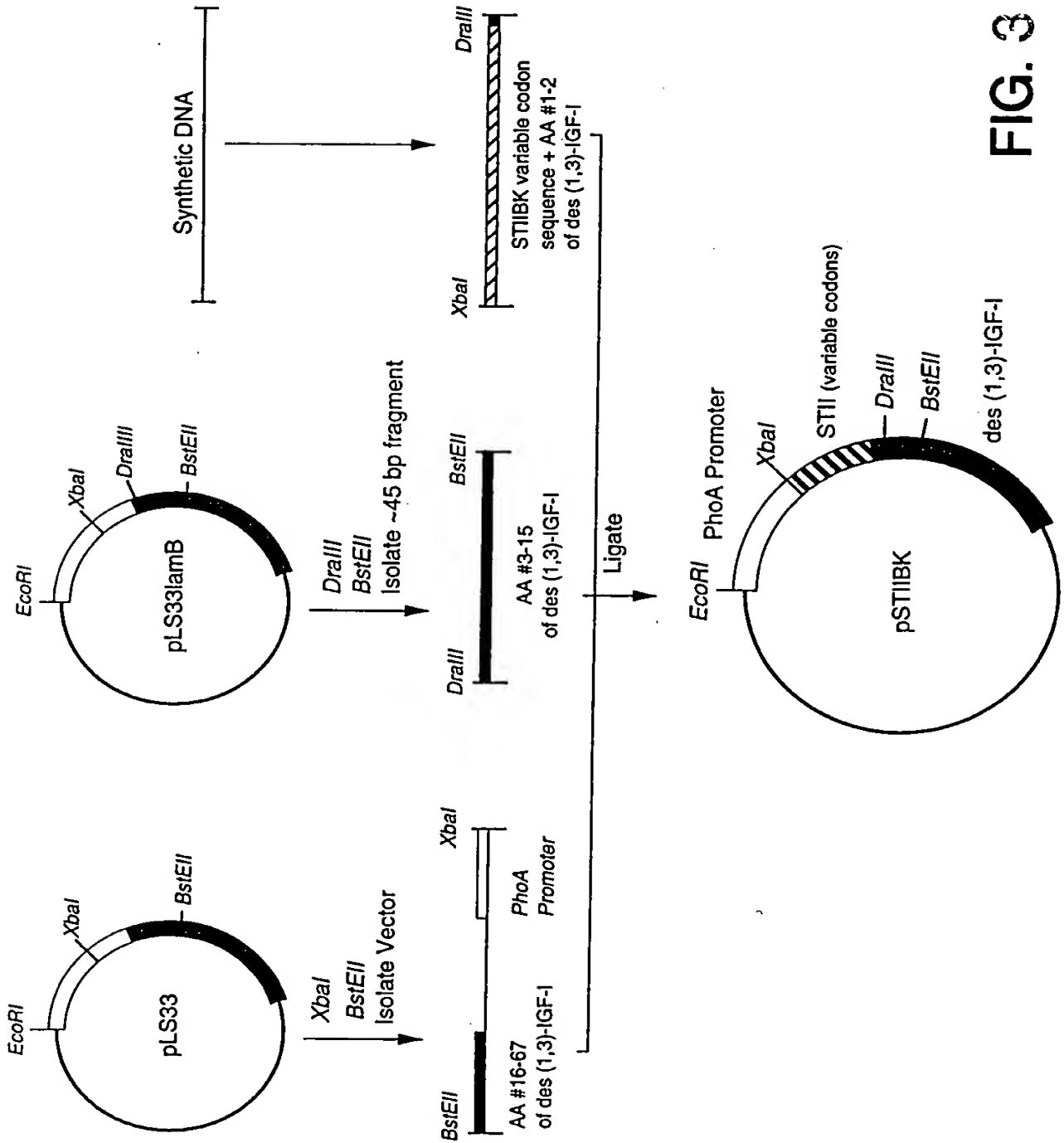


FIG. 3

|           |                |
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| APPROVED  | O. G. FIG.     |
| BY        | CLASS/SUBCLASS |
| CRAFTSMAN |                |

FIG. 4

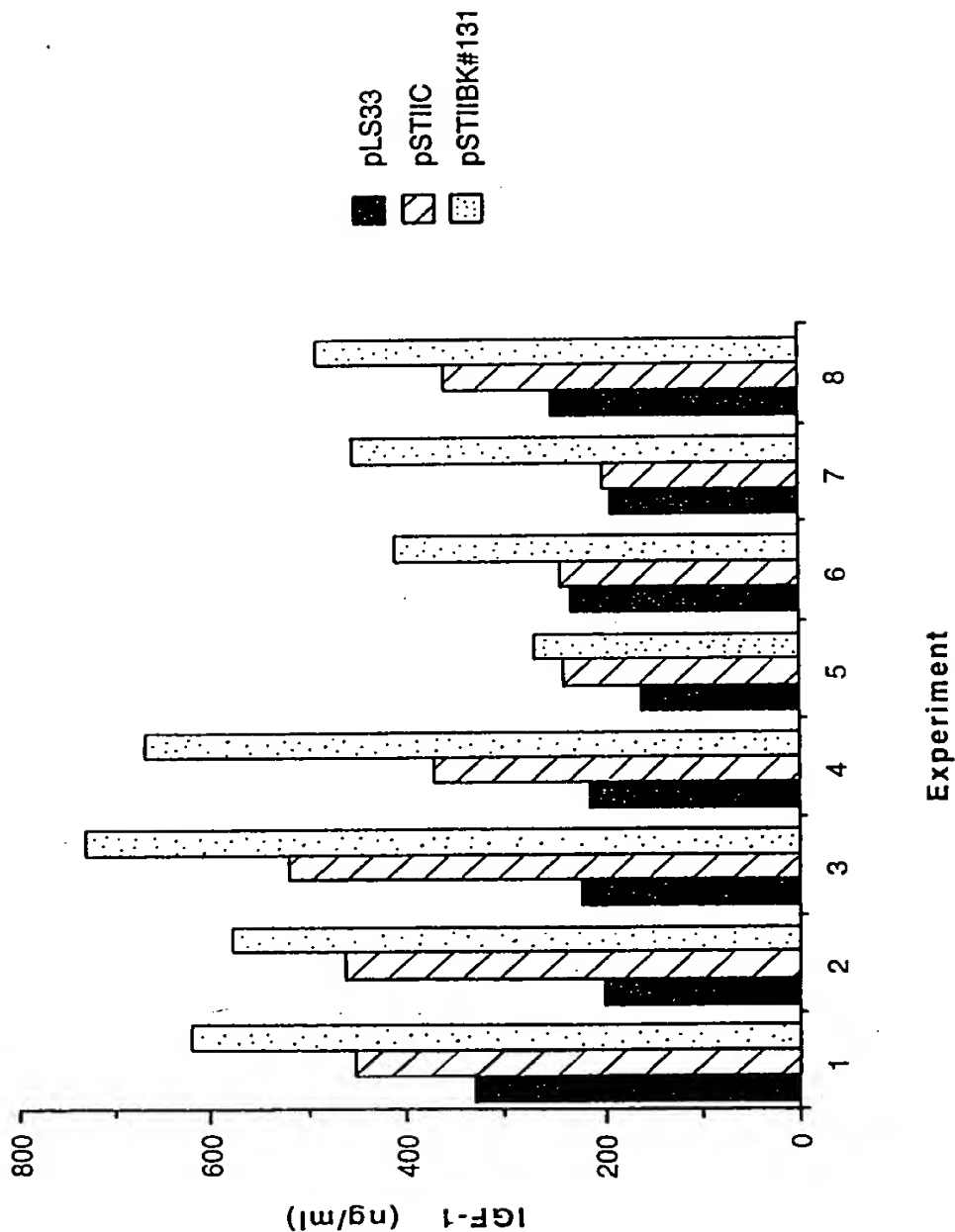


FIG. 4

|           |                |
|-----------|----------------|
| APPROVED  | O.G. FIG.      |
| BY        | CLASS SUBCLASS |
| DRAFTSMAN |                |

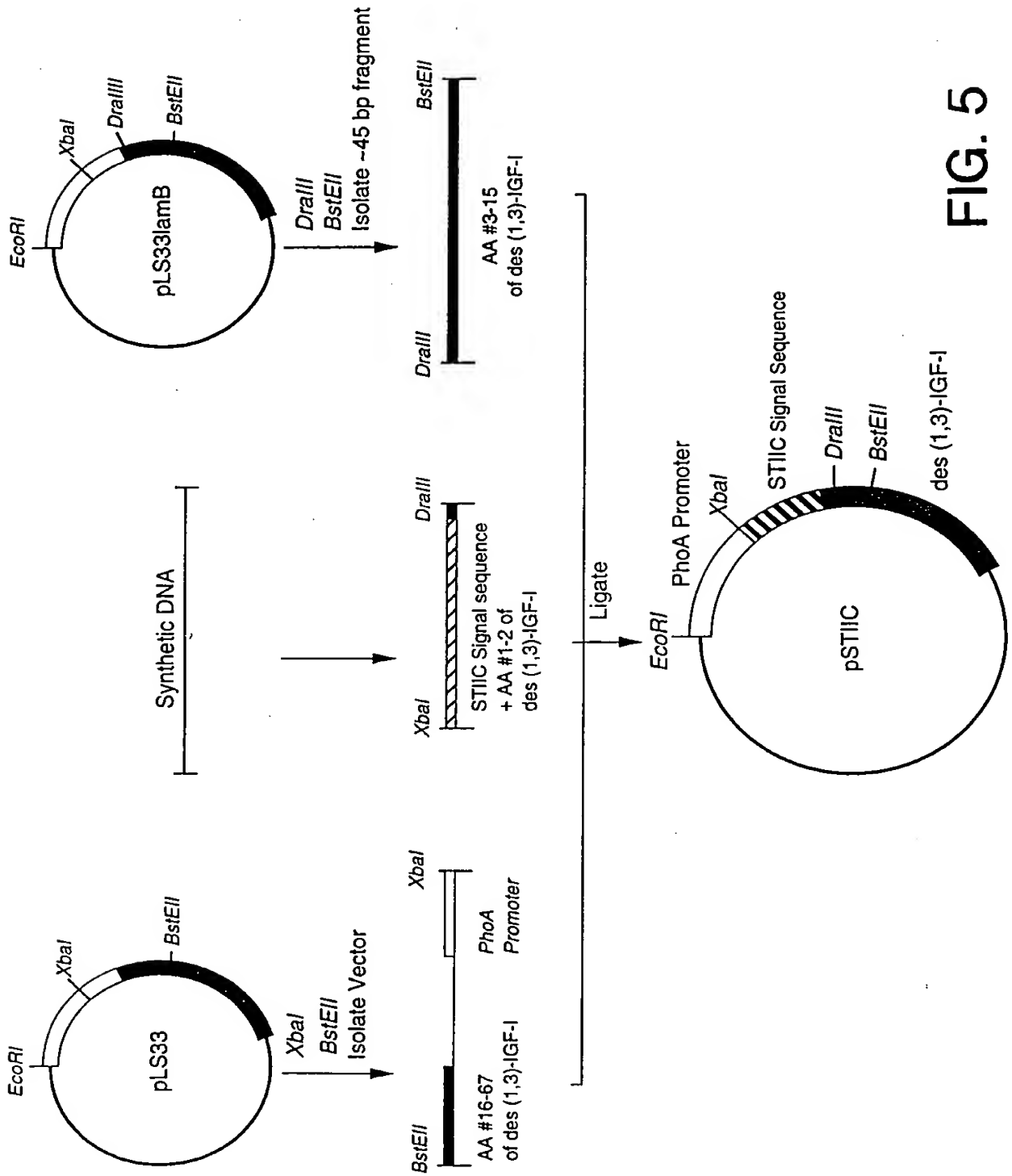


FIG. 5

|           |           |
|-----------|-----------|
| APPROVED  | O.G. FIG. |
| BY        | CLASS     |
| DRAFTSMAN | SUBCLASS  |

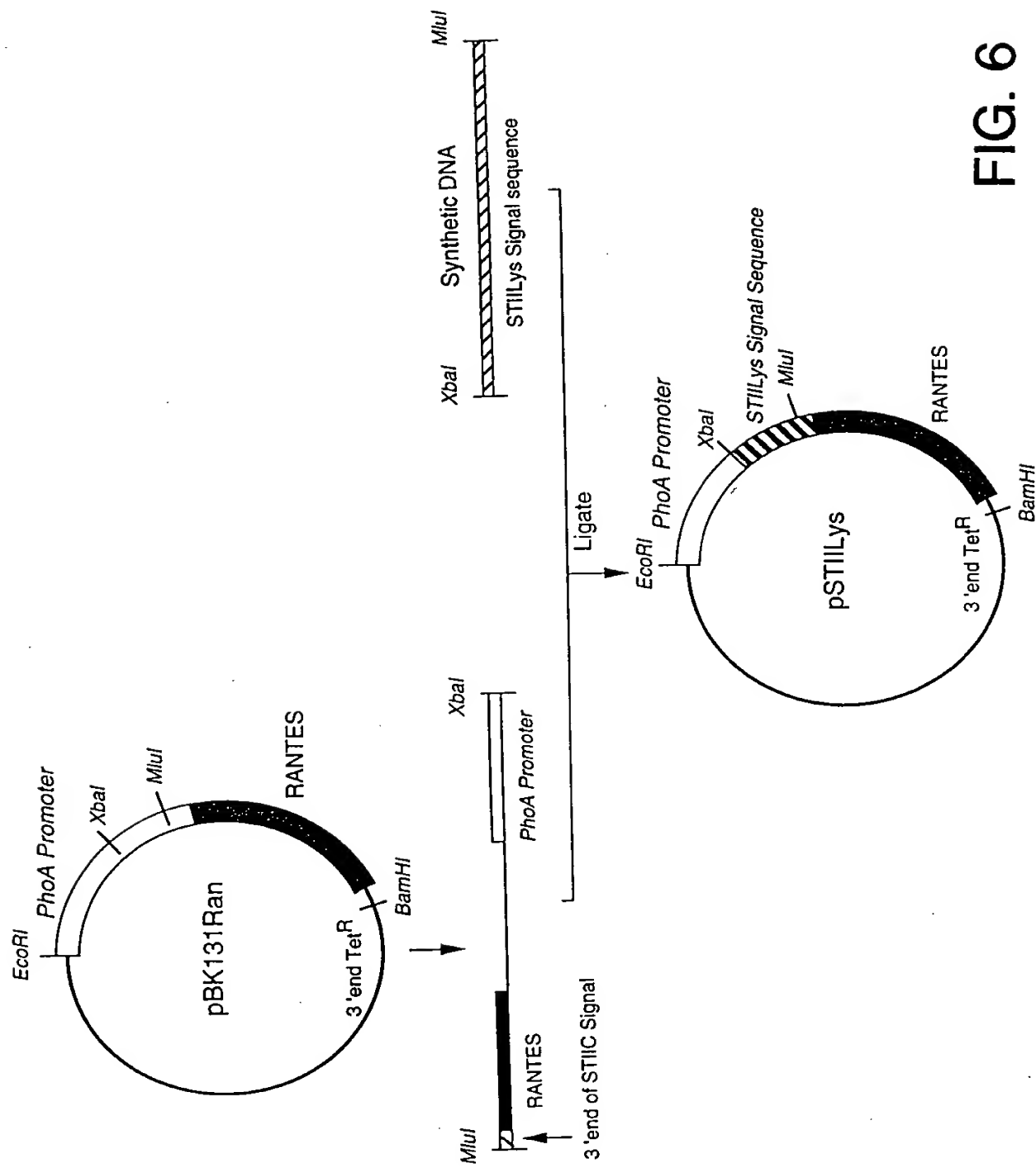


FIG. 6

|           |                |
|-----------|----------------|
| APPROVED  | O.G. FIG.      |
| BY        | CLASS/SUBCLASS |
| DRAFTSMAN |                |

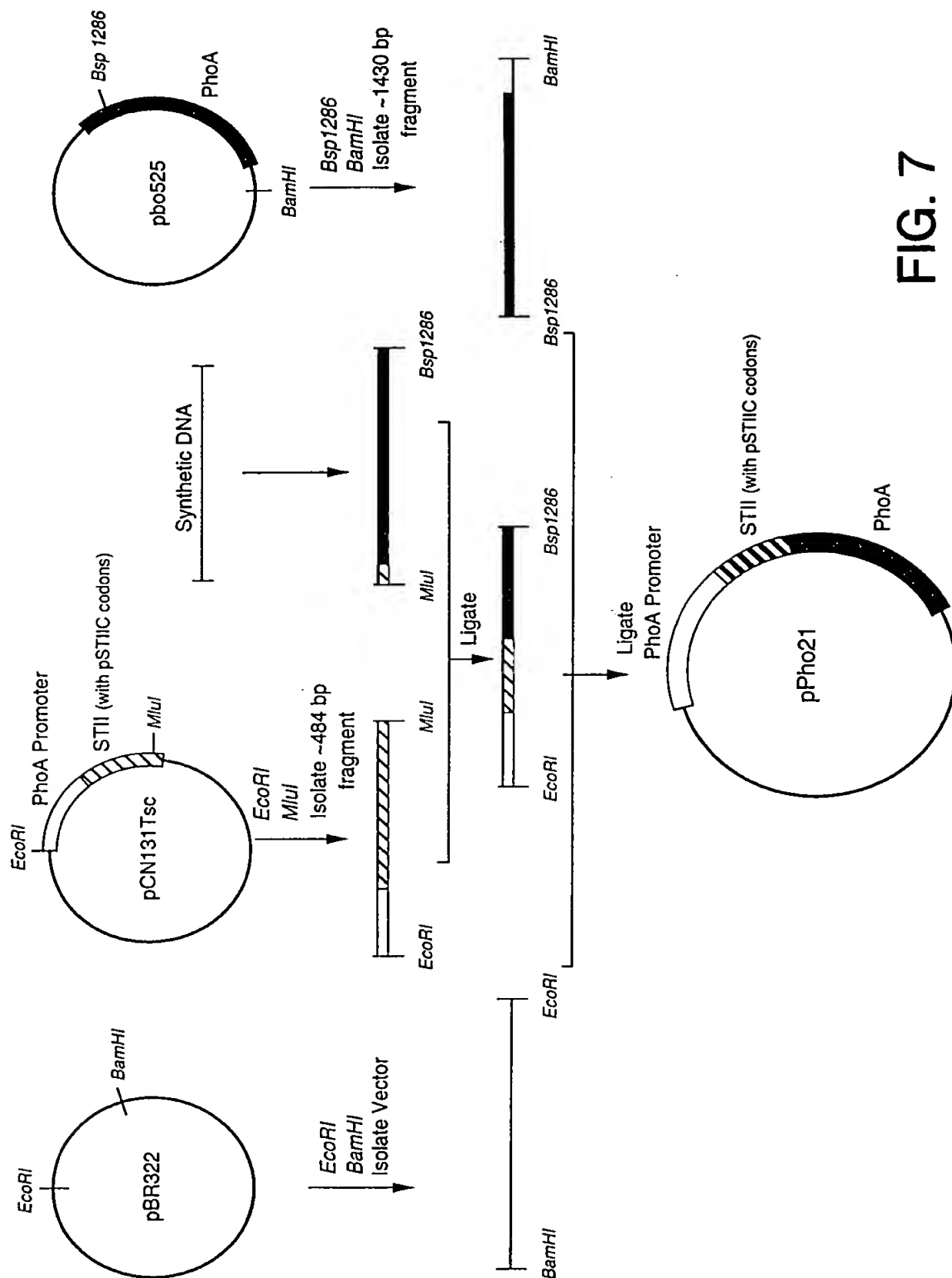


FIG. 7

|           |                |
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| APPROVED  | O.G. FIG.      |
| BY        | CLASS/SUBCLASS |
| DRAFTSMAN |                |

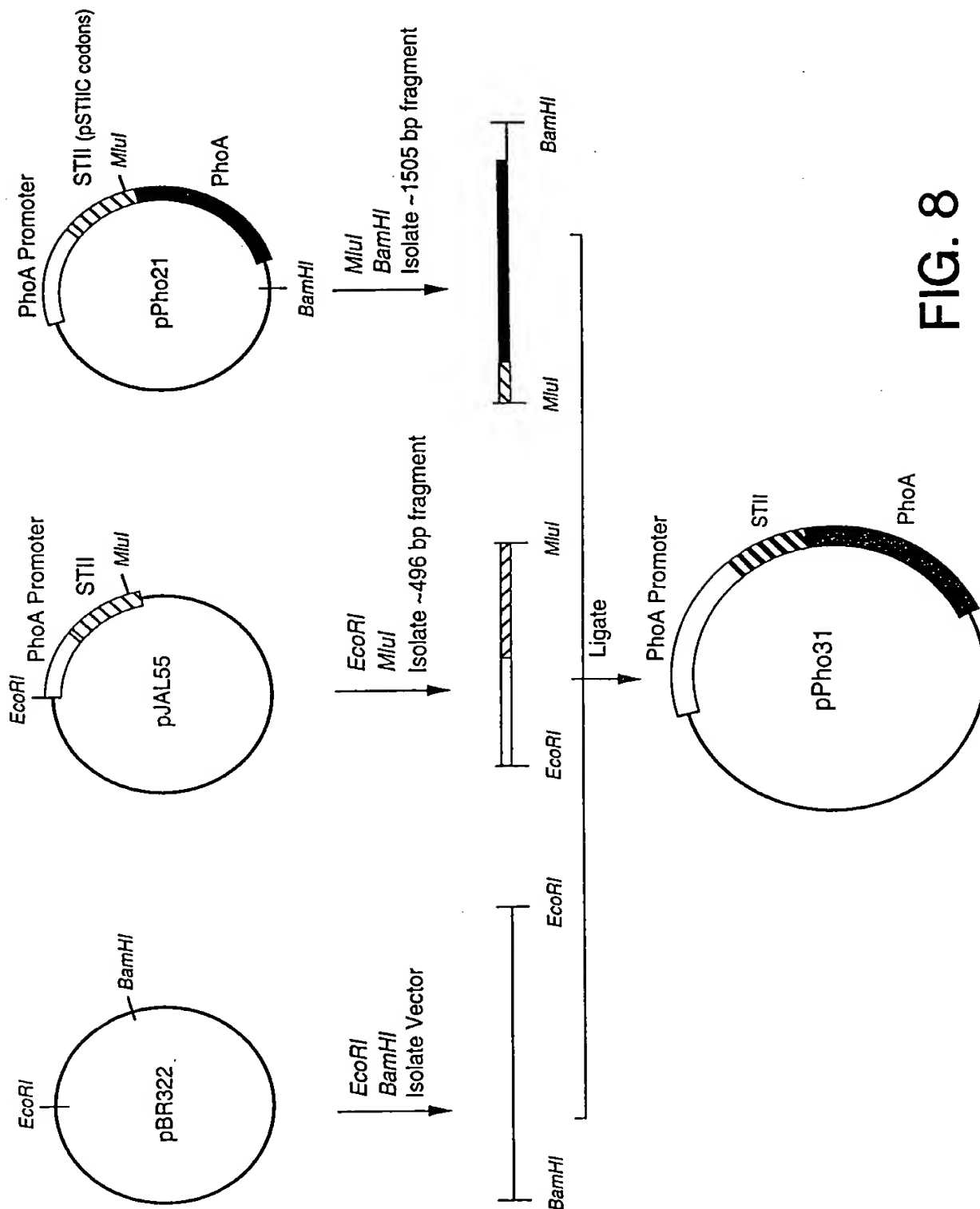


FIG. 8



|           |                |
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| APPROVED  | O.G. FIG.      |
| BY        | CLASS/SUBCLASS |
| DRAFTSMAN |                |

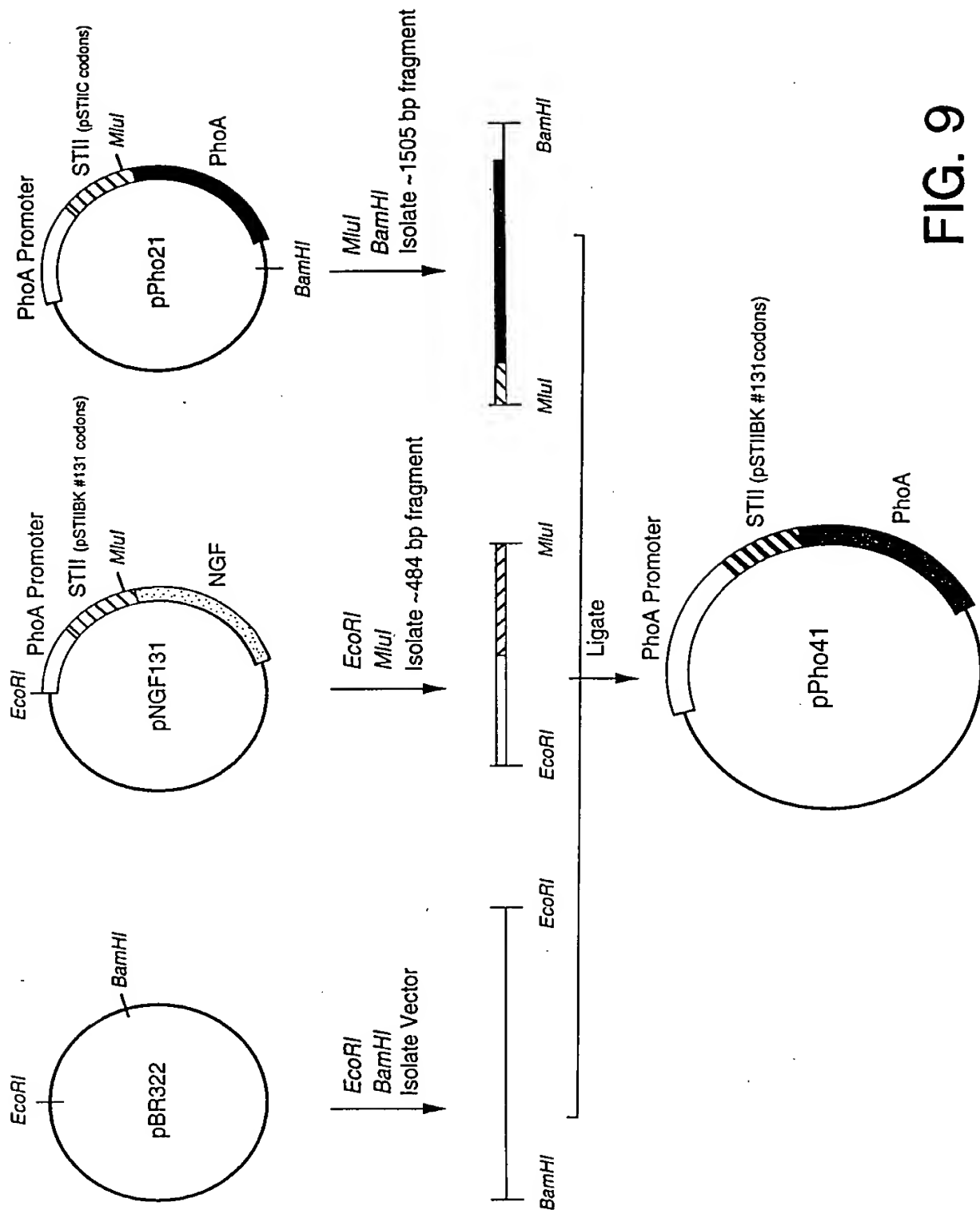


FIG. 9

|           |                |
|-----------|----------------|
| APPROVED  | O.G. FIG.      |
| BY        | CLASS/SUBCLASS |
| DRAFTSMAN |                |

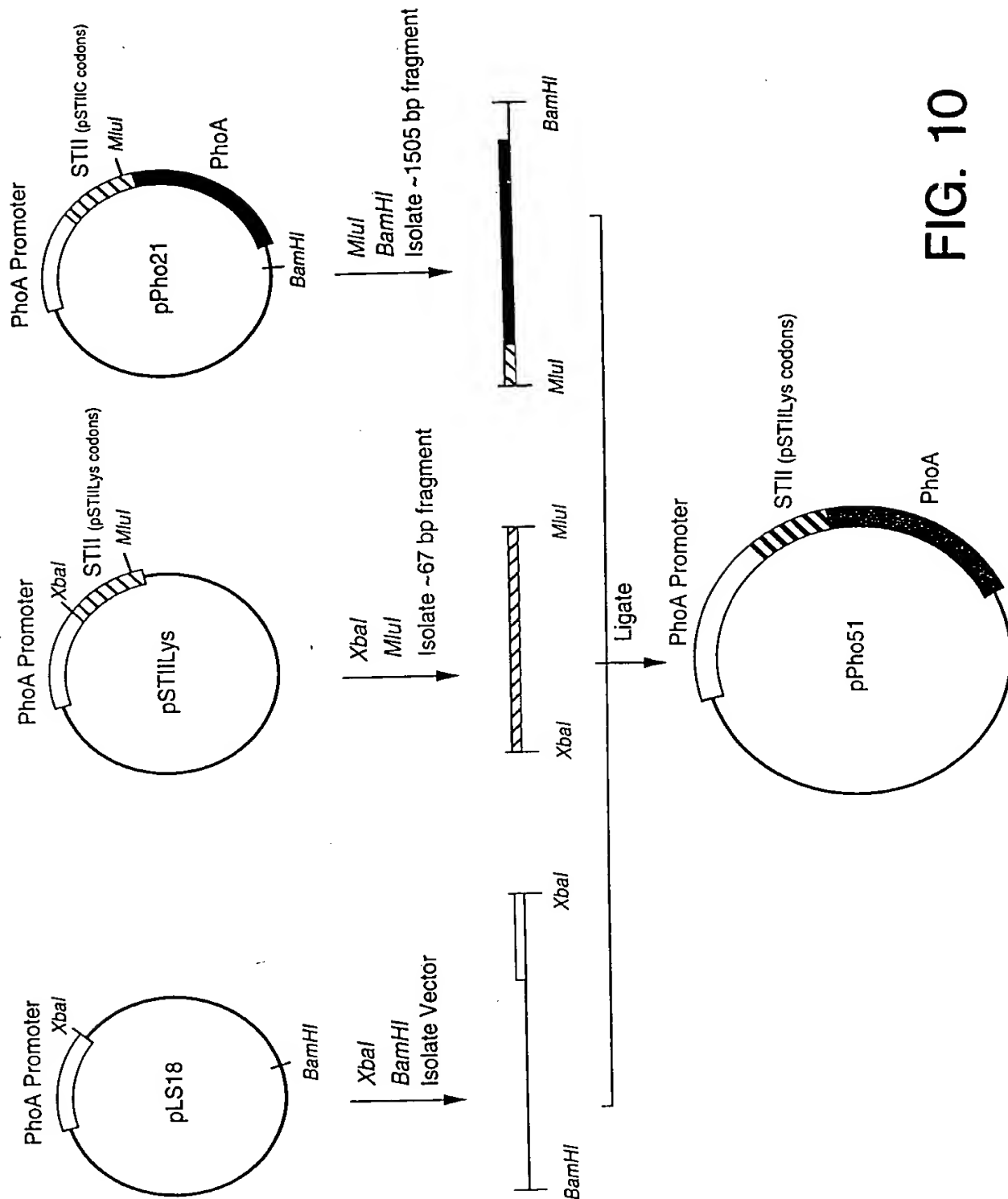


FIG. 10

|           |                |
|-----------|----------------|
| APPROVED  | O.G. FIG.      |
| BY        | CLASS/SUBCLASS |
| DRAFTSMAN |                |

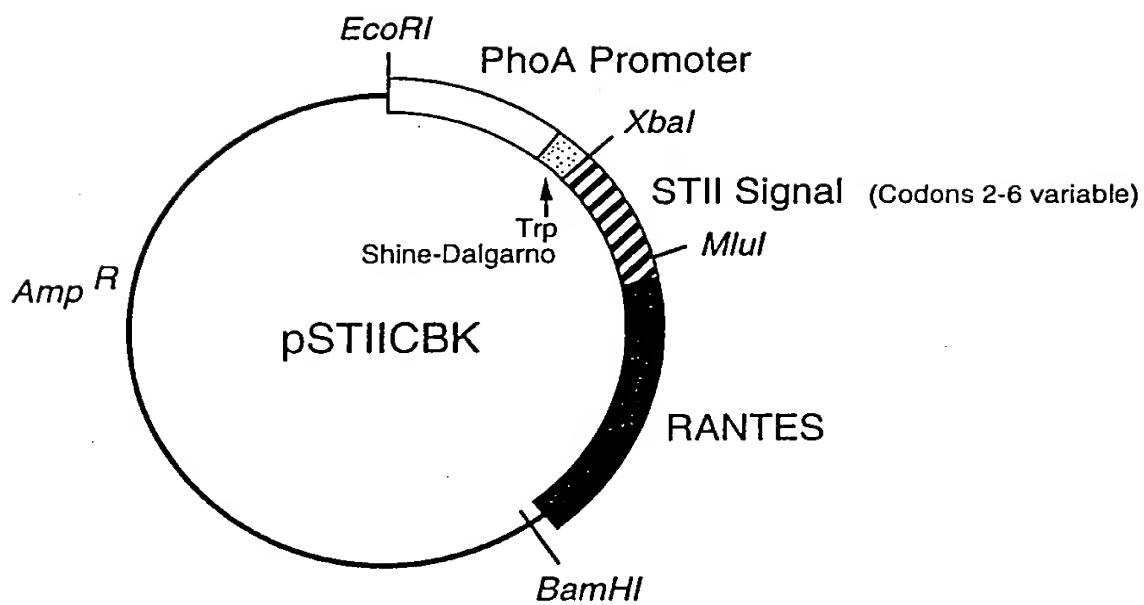


FIG. 11

FIG. 11

|           |                |
|-----------|----------------|
| APPROVED  | O.G. FIG.      |
| BY        | CLASS/SUBCLASS |
| DRAFTSMAN |                |

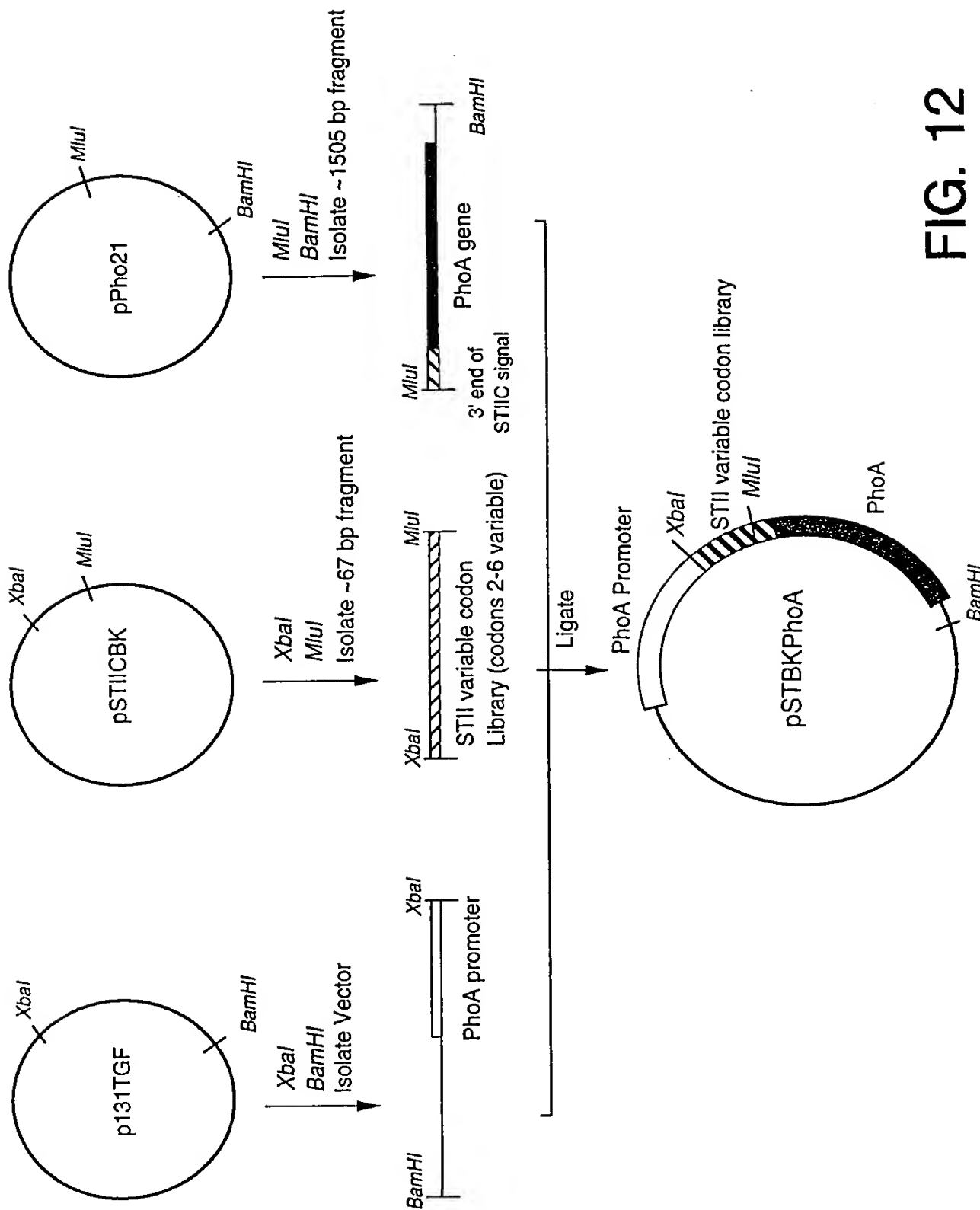


FIG. 12

|           |           |
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| APPROVED  | O.G. FIG. |
| BY        | CLASS     |
| DRAFTSMAN | SUBCLASS  |

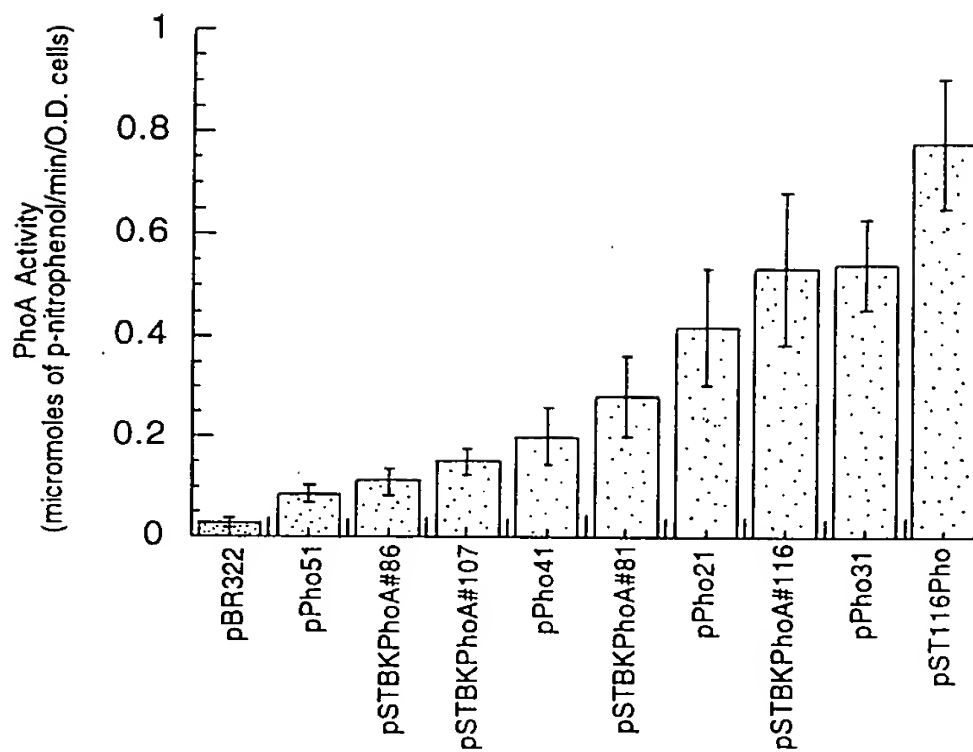


FIG. 13

|           |                |
|-----------|----------------|
| APPROVED  | O.G. FIG.      |
| BY        | CLASS/SUBCLASS |
| DRAFTSMAN |                |

A-63487-3

RECEIVED

pPho31 (Wild type STII + MluI site)  
TCTAGAGGTTGAGGTGATTTT ATG AAA AAG AAT ATC GCA TTT CTT CTT GCA TCT ATG TTC GTT

pPho21 (STIIC)  
TCTAGAATT ATG AAA AAG AAT ATC GCA TTT CTT CTT GCA TCT ATG TTC GTT

pPho41 (STIIBK#131)  
TCTAGAATT ATG AAG AAG AAT ATT GCG TTC CTA CTT GCC TCT ATG TTT GTC

pPho51 (STIILys - unless otherwise noted this sequence is the TIR=1 used in the examples)  
TCTAGAATT ATG AAG AAG AAT ATC GCA TTT CTT CTT GCA TCT ATG TTC GTT

pSTBKPhoA#116  
TCTAGAATT ATG AAA AAA AAC AAC ATC GCA TTT CTT CTT GCA TCT ATG TTC GTT

pSTBKPhoA#81  
TCTAGAATT ATG AAA AAA AAC AAC ATT GCC TTT CTT CTT GCA TCT ATG TTC GTT

pSTBKPhoA#107  
TCTAGAATT ATG AAG AAA AAC AAC ATC GCT TTT CTT CTT GCA TCT ATG TTC GTT

pSTBKPhoA#86  
TCTAGAATT ATG AAA AAG AAC ATA GCG TTT CTT CTT GCA TCT ATG TTC GTT

pSTI16Pho  
TCTAGAGGTTGAGGTGATTTT ATG AAA AAA AAC AAC ATC GCA TTT CTT CTT GCA TCT ATG TTC GTT

FIG. 14A

105040-134230

A-63487-3

|           |                |
|-----------|----------------|
| APPROVED  | O.G. FIG.      |
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TIR RELATIVE STRENGTH

|   |    |
|---|----|
| TTT TCT ATT GCT ACA AAY GCS TAT GCM* (SEQ ID NO:15) | 9  |
| TTT TCT ATT GCT ACA AAC GCG TAT GCM (SEQ ID NO:16)  | 7  |
| TTT TCT ATA GCT ACA AAC GCG TAT GCM (SEQ ID NO:17)  | 3  |
| TTT TCT ATT GCT ACA AAC GCG TAT GCM (SEQ ID NO:18)  | 1  |
| TTT TCT ATT GCT ACA AAC GCG TAT GCM (SEQ ID NO:19)  | 9  |
| TTT TCT ATT GCT ACA AAC GCG TAT GCM (SEQ ID NO:20)  | 4  |
| TTT TCT ATT GCT ACA AAC GCG TAT GCM (SEQ ID NO:21)  | 2  |
| TTT TCT ATT GCT ACA AAC GCG TAT GCM (SEQ ID NO:22)  | 1  |
| TTT TCT ATT GCT ACA AAC GCG TAT GCM (SEQ ID NO:23)  | 13 |

\* The codons for the last four amino acids of this sequence may differ in some of the examples of protein secretion. For example, in the IGF-1, VEGF165 and RANTES secretion plasmids, the sequence is AAT GCC TAT GCA. The last codon for the last amino acid in every sequence listed may vary in the examples of protein secretion - GCC and GCA were both used.

FIG. 14B

|           |           |          |
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| APPROVED  | O.G. FIG. |          |
| BY        | CLASS     | SUBCLASS |
| DRAFTSMAN |           |          |

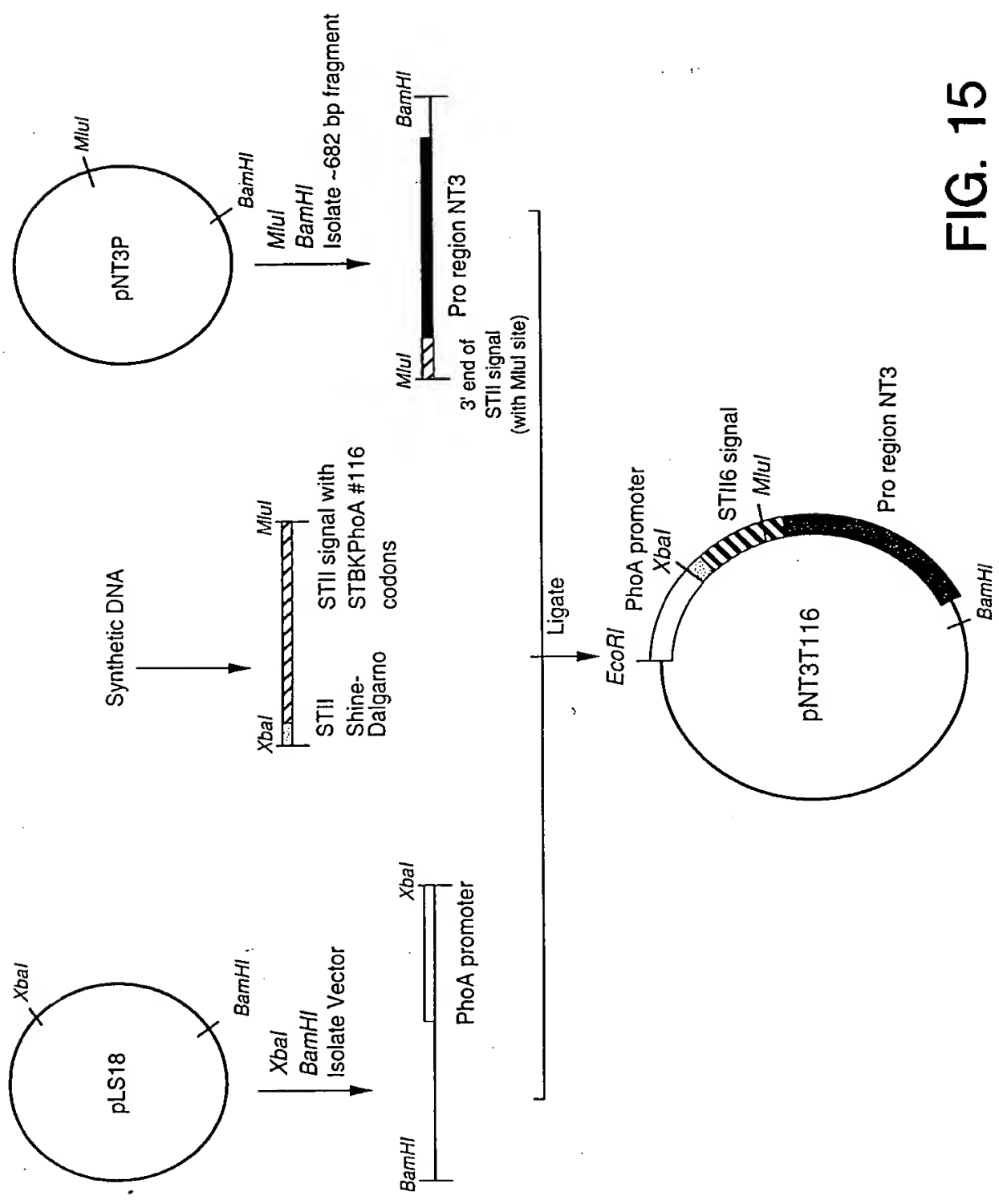


FIG. 15



|           |           |
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| APPROVED  | O.G. FIG. |
| BY        | CLASS     |
| DRAFTSMAN | SUBCLASS  |

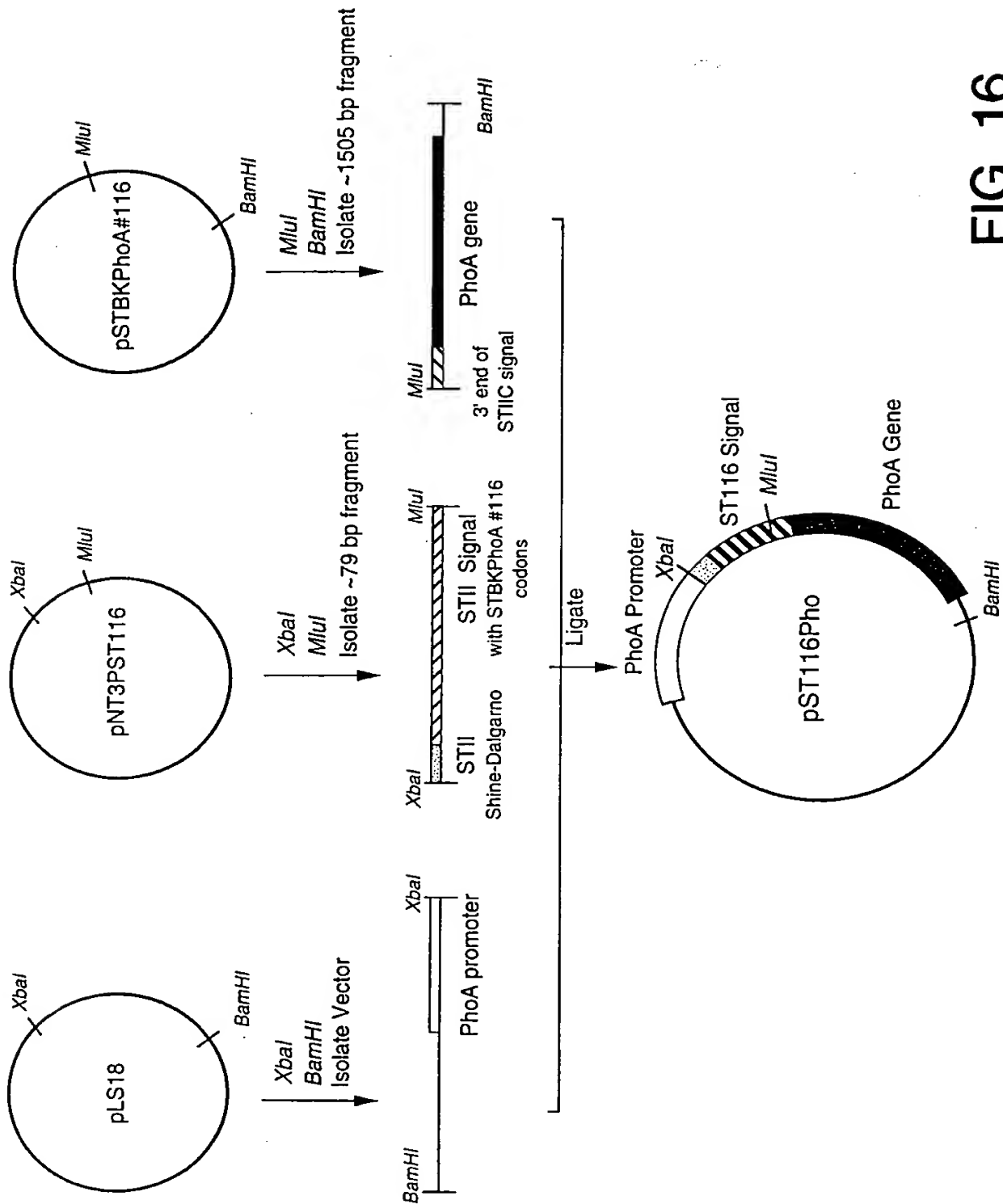
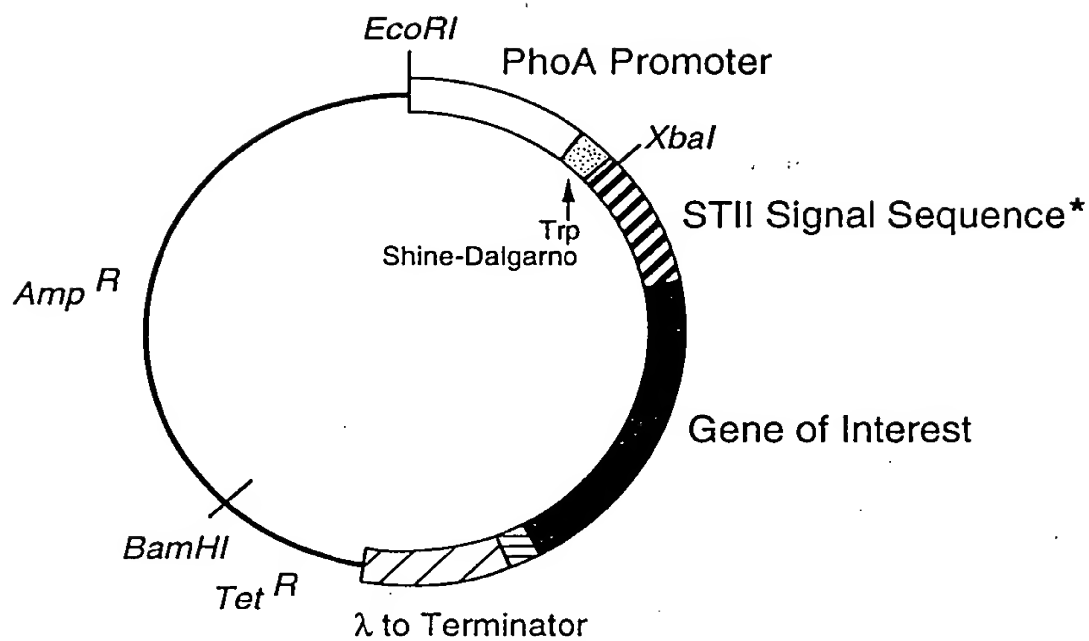
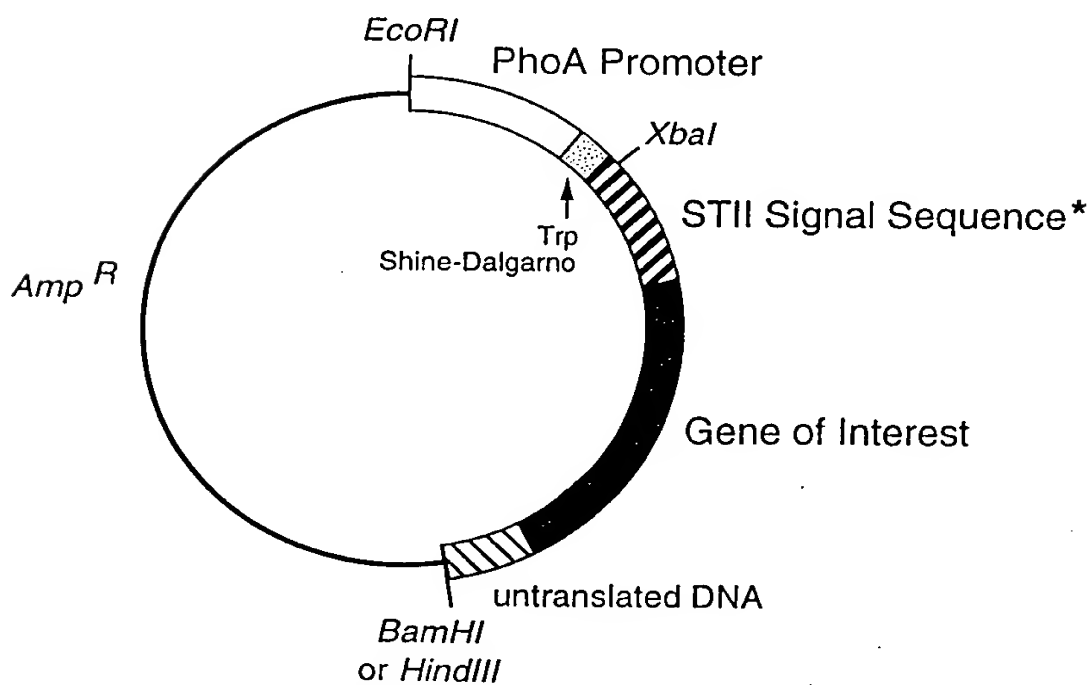


FIG. 16



\* One of the nucleotide sequences listed in Figure 14 (STII Shine-Dalgarno may also be included).

**FIG. 17**



\* One of the nucleotide sequences listed in Figure 14 (STII Shine-Dalgarno may also be included).

**FIG. 18**